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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/092,252	03/07/2002	Gang Wu	4035-0148P	9279
2292	7590	11/17/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			ROBERTS, BRIAN S	
			ART UNIT	PAPER NUMBER
			2662	

DATE MAILED: 11/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/092,252	WU ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Brian Roberts	2662	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 March 2002.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

- Claims 1-2 have been examined.

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-2 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- In reference to claim 1

It is unclear whether the "common core network" in line 7 is the same as the "common core network" of line 11. Furthermore it is unclear if a "common core network" differs a "common core network structure".

- In reference to claim 2

Claim 2 recites the limitation "one common core network" in line 3 of claim 2. The antecedent basis for this limitation in the claim is unclear. Furthermore, it is unclear whether "a plurality of common core network structures" is the same as "a plurality of common core networks".

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizutani et al. (US 6798757) in view of Brewer et al. "A Network Architecture for Heterogeneous Mobile Computing" (Daedalus Project, Berkeley, <http://daedalus.cs.Berkeley.edu>.)

- In reference to claim 1

In Figure 1 and 3, Mizutani et al. teaches a mobile system that includes:

- A mobile manager (34) that keeps track of the movement of mobile stations and functions as a home agent for mobile stations that move outside the mobile core network (30) (column 3 lines 57-65)
- A resource manager (52) that administers resource usage in the mobile core network (30)
- A mobile core network (30) that supports mobile stations roaming within the homogeneous mobile network system.
- A core networks (30) enabling Internet access via edge router (31A-B) and access to a base station (21A-F) inherently containing a base station interface

- Inherently includes a plurality of mobile core networks (foreign agents) to allow the mobile station to maintain communications when roaming outside of the mobile core network (30) (column 3 lines 61-65)

Mizutani et al. does not explicitly teach a micro-mobility or macro-mobility management function that supports roaming between heterogeneous radio communication networks

In Figure 3, Brewer et al. teaches a wireless overlay network structure that allows for the micro-mobility management function and the macro-mobility management function to supports horizontal handoff between base stations in a homogeneous network and vertical handoff between base stations belonging to heterogeneous networks. (pg 3 column 2 paragraph 5 – pg 4 column 2 paragraph 8)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to include the system of Mizutani et al. in the wireless overlay network structure of Brewer et al. and modify the system and method of Mizutani et al. to include the micro-mobility management function and the macro-mobility management function of Brewer et al. because it allows for vertical handoff to occur when a mobile station moves between the heterogeneous networks so a mobile station can switch between a low bandwidth/large geographical coverage area network and a high bandwidth/low geographical coverage area network. It also allows for horizontal handoff to occur when a mobile station moves between base stations belonging to a homogeneous network to increase the geographical coverage area of the network.

***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure are:

- Ivanoff et al. (US 5517622) teaches a method and apparatus for pacing communications in a distributed heterogeneous network.
- Tourunen et al. (US 2002/0001298) teaches a method of allocating data transmission resources in a packet-switched data transmission network.
- Ahn et al. (US 20020023162) teaches a method for integrating network elements that includes a mobility manager and resource manager.
- Li et al. (US 2002/0031107) teaches a method and apparatus for supporting micro-mobility within a radio access network.
- Reza et al. (US 2002/0085528) teaches a method and system implementing mobility support in a packet-based wireless access network.
- Gwon (US 20020131386) teaches mobility prediction in wireless mobile access digital networks.

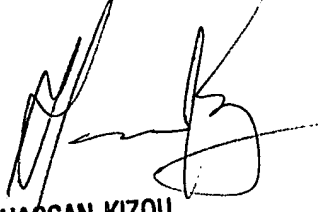
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Roberts whose telephone number is (571) 272-3095. The examiner can normally be reached on M-F 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2662

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BSR  
11/02/2005



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